

44

|                               |                        |                     |  |
|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 10/627,156             | FEKRI, FARAMARZ     |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Matthew B. Smithers    | 2137                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed on September 19, 2007.
2. ☒ The allowed claim(s) is/are 1-25 and 27-55.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## DETAILED ACTION

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Rhett White on November 13, 2007.

The application has been amended as follows:

#### **IN THE CLAIMS:**

27. (Currently Amended) An ~~encoder~~ encryption system for enabling encryption of an plaintext, comprising means for receiving an plaintext and means for encrypting said plaintext at least in part by utilizing at least one non-linear device and performing a mathematical inverse wavelet transformation over a finite field on said plaintext to produce cyphertext.

28. (Currently Amended) The ~~encoder~~ encryption system of claim 27, wherein said cyphertext is selected from the group consisting of block data or stream data.

29. (Currently Amended) The ~~encoder~~ encryption system of claim 27, wherein said means for encrypting said plaintext at least in part by performing a mathematical inverse wavelet transformation is a filter.

30. (Currently Amended) The ~~encoder~~ encryption system of claim 27, wherein said means for encrypting said plaintext at least in part by performing a mathematical inverse wavelet transformation is a digital filter, said digital filter configured to exhibit a predefined transfer function defined by a set of predefined filter coefficients, said filter coefficients being defined to perform said mathematical inverse wavelet transformation on said plaintext.

31. (Currently Amended) The ~~encoder~~ encryption system of claim 27, wherein said means for encrypting said plaintext at least in part by performing a mathematical inverse wavelet transformation is an analog filter, said analog filter configured to exhibit a predefined transfer function defined by a set of predefined filter parameters, said predefined filter parameters defining said mathematical inverse wavelet transformation.

32. (Currently Amended) The ~~encoder~~ encryption system of claim 27, further comprising a means for performing a mathematical wavelet transformation over said finite field on said plaintext, in addition to said mathematical inverse wavelet transformation, in order to produce said cyphertext.

33. (Currently Amended) The ~~encoder~~ encryption system of claim 27, further comprising a means for communicating said cyphertext over a wireless communication medium.

34. (Currently Amended) An ~~encoder~~ encryption system for enabling encryption of an plaintext, comprising means for receiving an plaintext and means for encrypting said plaintext at least in part by utilizing at least one non-linear device and performing a

mathematical wavelet transformation over a finite field on said plaintext to produce cyphertext.

40. (Currently Amended) A ~~decoder~~ decryption system comprising a means for receiving cyphertext and for decrypting said cyphertext at least in part by utilizing at least one non-linear device and performing a mathematical wavelet transformation over a finite field on said cyphertext to produce an plaintext.

41. (Currently Amended) The ~~decoder~~ decryption system of claim 40, wherein said means is at least one filter.

42. (Currently Amended) The ~~decoder~~ decryption system of claim 40, wherein said decoder includes means operable to perform a mathematical inverse wavelet transformation in addition to performing said mathematical wavelet transformation.

43. (Currently Amended) The ~~decoder~~ decryption system of claim 40, further comprising a means for deriving a plurality of wavelet coefficients based upon said cyphertext to produce said plaintext.

44. (Currently Amended) The ~~decoder~~ decryption system of claim 40, wherein said means is a digital filter, said digital filter configured to exhibit a predefined transfer function defined by a set of predefined filter coefficients, said filter coefficients being defined to perform said mathematical wavelet transformation on said cyphertext.

45. (Currently Amended) The ~~decoder~~ decryption system of claim 40, wherein said means is an analog filter, said analog filter configured to exhibit a predefined transfer function defined by a set of predefined filter parameters, said predefined filter parameters defining said mathematical wavelet transformation.

46. (Currently Amended) The ~~decoder~~ decryption system of claim 40, further comprising a means for receiving said cyphertext from a wireless communications medium.

***Allowable Subject Matter***

Claims 1-25 and 27-55 are allowed.

The following is an examiner's statement of reasons for allowance: The present invention is directed to a method and system for ensuring security of data using wavelet transformations during the transmission of the data from one device to another. Each independent claim identifies the uniquely distinct features of "an encryption system, wherein said encryption system includes at least one non-linear device, and is operable to receive plaintext and to encrypt said plaintext at least in part by performing an inverse wavelet transformation over a finite field on said plaintext to produce cyphertext". The closest prior art, Fekri (US 6,898,756), fails to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

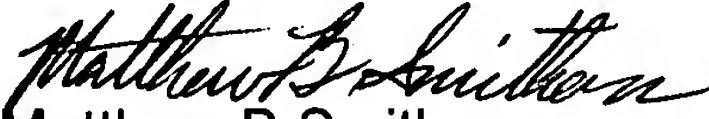
Application/Control Number:  
10/627,156  
Art Unit: 2137

Page 6

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew B. Smithers whose telephone number is (571) 272-3876. The examiner can normally be reached on Monday-Friday (8:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel L. Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Matthew B Smithers  
Primary Examiner  
Art Unit 2137